REMARKS

This is a Response to the Office Action mailed April 22, 2009, in which a three (3) month Shortened Statutory Period for Response has been set, due to expire July 22, 2009. Twenty-nine (29) claims, including four (4) independent claims, were paid for in the application. Claim 40 has been amended. New claims 65-71 have been added. No new matter has been added to the application. No fee for additional claims is due by way of this Amendment. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090. Claims 40-42, 44-46, 50, 51, 59, and 62-71 are pending.

Rejections Under 35 U.S.C. § 103

Claims 40, 44-46, 50, 51, and 62 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,026,818 issued to Blair et al. (hereinafter "Blair") in view of U.S. Patent No. 6,909,366 issued to Marsh et al. (hereinafter "Marsh").

Blair is directed to a transponder and transponder detection system. Blair, title. The transponder and transponder detection system may be used to mark and detect objects used in surgery. Blair, abstract. In use, a medical service provider may sweep a wand along a patient, for example prior to closing a wound during surgery, to determine the presence or absence of transponders and hence foreign objects in a body cavity. Blair, col. 5, lines 36-54, col. 8, line 67-col. 9, line 6.

Importantly, Blair employs a simple resonant transponder that does not include memory and which does not store or otherwise encode any information. Blair, col. 4, lines 51-67. Blair teaches the use of multiple orthogonal tank windings in the transponders in order to address the possibility of nulls. Blair, col. 8, lines 24-34, col. 9, lines 35-42.

The transponder detection system includes a hand-held wand having a single antenna (*e.g.*, multi-coil loop antenna) and transmitter/receiver circuitry communicatively coupled to the antenna. Blair, col. 6, lines 11-16, col. 7, col. 6, line 39-col. 7, line 30.

Blair implements a half-duplex operation, advantageously employing a wide band pulsed excitation signal to pump energy into the transponder, followed by a quiet period during which the transponder detection system ceases providing energy and monitors or listens for a narrowband return signal. Blair, col. 5, lines 5-20 and col. 5, line 57-col. 7, line 30. Pulsed excitation allows more energy to be supplied to the transponder, extending ring back duration and hence extending effective range. Blair, col. 6, lines 3-10. Importantly, the wide band excitation signal allows the energy from the radiating antenna to quickly attenuate, effectively increasing the duration of the quiet period, thereby allowing enhanced signal-to-noise ratio when monitoring for a response or return signal. Blair, col. 5, lines 1-20. Such advantageously allows the use of extremely inexpensive low Q transponders. Blair, col., 5, lines 15-20 and col. 5, line 65-col. 6, line 3. Such contrasts with the typical expensive high Q RFID transponders normally employed in automatic data collection activities.

Thus, as taught by Blair, the transponder detection system simply determines whether a transponder is present or absent from an area being scanned without reading any information from the transponder. As noted above, the simple resonant (*e.g.*, LC) transponder has no memory and thus is not capable of having information read from or written to the transponder. As noted above, the Blair transponder detection system importantly employs half-duplex operation, stopping all transmission and relying on a fast decay time while listening for a response or return signal from any transponders that may be within range.

Marsh is directed to the problem of avoiding repeatedly reading information from a memory of the same radio frequency identification (RFID) transponder.

In particular, Marsh is directed to passive RFID transponders, that is transponders that have read/writable memories and that derive power from interrogation signals. Marsh describes the operation of conventional RFID transponders as including the writing of information to an on-board memory each time the RFID transponder responds to an interrogation signal. Such is intended to prevent the RFID transponder from repeatedly responding to interrogation signals within some period of time. Marsh notes that this approach has proven unsatisfactory due to nulls and voids in the interrogation field. In particular, Marsh notes that since RFID transponders have limited on-board power storage capabilities, the RFID

transponders lose the contents of their memory each time power to the transponder is lost due to a null or void in the interrogation field, since the RFID transponders reset on reestablishing energization with an interrogation field. Marsh, col. 1, lines 48-59.

As a solution, Marsh proposes transmitting a first interrogation and energizing field and transmitting a second interrogation and energizing field with a time period of a predicted interruption of supply of power corresponding to a maximum time period for which the RFID transponder may not be powered without loss of contents of memory or triggering a reset. Marsh, col. 3, lines 9-15; col. 6, lines 57-62; and col. 9, lines 11-24. In particular, Marsh teaches that after a successful read, a memory set signal is set to low, which turns on a transistor Q1 to charge a capacitor C. Marsh, col. 5, lines 8-63. When the voltage of the capacitor is greater than a threshold Vref, further reading from the memory is disabled. Id. When power from the interrogation is received after an interrupted, if the voltage of the capacitor is still above the threshold Vref then reading from the memory remains disabled. Id. If the voltage of the capacitor is below the threshold Vref, reading is enabled and the memory set signal is set to high, to recharge the capacitor. Id. Thus, the capacitor essentially serves as a timer to prevent the resetting of memory in response to brief interruptions of power to the RFID transponder, while causing the resetting of memory in response to longer interruptions. Marsh, col. 5, lines 46-63.

Marsh also proposes the use of interrogation fields having a sufficient number of different axes of polarization to cover all possible orientations and locations of the RFID transponder. Marsh, col. 3, lines 9-15. Marsh further proposes sequentially cycling through interrogation fields emitted by orthogonally arranged antennas in such a way that the record of successful transmission in the on-board memory is not lost. Marsh, col. 3, lines 23-29; and col. 4, line 4-col. 5, line 7. Marsh appears to assume that in some situations the RFID transponder will only receive power from only the one of the orthogonal antennas with which the RFID transponder is aligned. Marsh, col. 3, lines 23-29 and Fig. 3. Thus, Marsh consecutively operates each antenna for coextensive interrogations periods that are sufficiently short that the entire duration of an interrogation cycle (*e.g.*, from first antenna to first antenna) is shorter than the time in which the contents of RFID transponder's memory will be lost. Marsh, Marsh, col. 3, lines 23-29; col. 4, line 4-col. 5, line 7; and Fig 3.

Importantly, Marsh does not include any monitoring or listening periods following the transmit periods of an interrogation cycle. While the Office Action alleges that it would have been obvious at the time of the invention to combine the teachings of Marsh with Blair, Marsh is not only inconsistent with the half duplex operation of Blair, but Marsh actively teaches away from such half duplex operation. Marsh teaches that the RFID tag transmits only when receiving energy from an interrogation signal, and that the RFID transponder is unpowered when not receiving an interrogation signal. Marsh, col. 5, lines 33-34; col. 6, lines 17-22. (The RFID transponder appears to rely on the inherent ability of the memory to briefly retain information (*i.e.*, an indication of a previous successful transmission from transponder) on loss of power, until reenergized by the interrogation signal. Marsh, col. 5, lines 5-7; and col. 6, lines 40-65. Shutting off all interrogation transmission to create listening periods for each respective antenna during a complete interrogation cycle would require either i) severely shortening the portions of the interrogation cycle during which interrogations signals are transmitted; or ii) lengthening the complete interrogation cycle.

With respect to i) severely shortening the portions of the interrogation cycle during which interrogations signals are transmitted, Blair teaches the use of relatively long periods of transmission to pulse excite the transponder to achieve long ring back duration, and hence long range. The modification required to achieve the proposed combination is thus *inconsistent* with the teachings of Blair. Likewise, Marsh requires a sufficiently long duration of transmission by at least one antenna to power the transponder. The reduction in interrogation transmission time necessary to accommodate a listening period would necessarily reduce the amount of power provided to the transponder during any given interrogation cycle. Thus, the modification required to achieve the proposed combination is also inconsistent with the teachings of Marsh.

With respect to (ii) lengthening the complete interrogation cycle, extending the duration of the complete interrogation cycle does not appear to be possible since the duration is dictated by the retention time of the memory.

Thus, while one can pick and chose between the disparate teachings of Blair and Marsh to cobble together some of the limitations of some of the pending claims, such is

inconsistent with the actual teachings of Blair and Marsh. This inconsistency is due to the fundamental differences in technologies between Blair (*i.e.*, presence/absence of resonant transponder with no memory) and Marsh (*i.e.*, preventing re-reading of information from memory of RFID transponder).

Further, Marsh is directed to a stationary antenna structure. Marsh, col. 7, lines 1-20 and 25-54. Transforming a system from a stationary antenna to a handheld antenna is not a trivial task. The complexity of such is not recognized, nor adequately addressed, by the Office Action. For instance, there is no assurance that the orientation and/or position of the antenna(s) when handheld will not change over a given interrogation cycle. In fact, if used as taught by Blair, it is guaranteed that the orientation and/or position of the antenna will vary during an interrogation cycle. Thus, it is very likely that the transponder may not be aligned with any one of the antennas (Marsh) during a single interrogation cycle. In which case, the transponder would go too long without power and would thus fail to function correctly. Marsh avoids such by using a fixed antenna. Additionally, movement of the antenna effects the clocking of signals. Such is a primary concern where memory is being read from and/or written to a transponder, such as in the case of Marsh. It is likely that a handheld antenna system would render Marsh inoperative without substantial modifications, none of which is addressed by the Office Action. Hence, the use of the orthogonal antenna elements of Marsh on the interrogator of Blair would not yield a same predictable result as alleged in the Office Action. Such assertion amounts to "armchair quarterbacking" and completely fails to recognize the technical challenges in adapting a fixed multiple element transmit/receive antenna to function correctly when subject to variable movement and orientation. Even further, the Office Action does not explain why one of ordinary skill in the art would ignore the clear teachings of Blair (*i.e.*, orthogonal coils in transponder) in order to adopt the teachings of Marsh. Blair already provides a solution to the problem of variable transponder orientation.

Claim 40 recites, *inter alia*, "a first electronic circuit coupled to the transmit/receive antenna elements of the handheld wand and configured to cause each of the transmit/receive antenna elements to emit varying wideband interrogation signals in a round-robin succession during a transmit portion of respective transmit and receive cycles and to cause

the transmit/receive antenna elements to not emit any interrogation signals during any of the receive portions of the transmit and receive cycles;" and "a second electronic circuit coupled to the transmit/receive antenna elements of the handheld wand and configured to determine from a receipt of any of the narrowband return signals during the receive portion of the respective transmit and receive cycles whether any of the resonant tag elements are present in the work area, wherein the transmit and receive cycles of each of the transmit/receive antenna elements are clocked so as to avoid an overlap with the respective transmit and receive cycles of the others ones of the transmit/receive antenna elements."

As explained above, while Marsh teaches an antenna with orthogonal elements, combining the teachings of Marsh with that of Blair would not be obvious to one of skill in the art.

Firstly, Blair teaches that the solution to variability in transponder position/orientation if the inclusion of orthogonal coils on the transponders themselves. There is simply no reason to *ignore* the clear teachings of Blair for the much more complicated teachings of Marsh. The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts. Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention *where there is some teaching, suggestion, or motivation* to do so. MPEP 2143.01 I (emphasis added). There appears to be no teaching, suggestion or motivation to modify the teachings of Blair in the way suggested by the Office. Where the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. MPEP 2143.01 II. In the present case, Blair provides a solution that clearly works with a moving antenna. In contrast, Marsh teaches the use of multiple antenna elements which are fixed or stationary with respect to the transponder. There is little or no expectation of success that such antenna elements may be moved as still achieve two-way communications between the antenna elements and the transponder, which communications depends on precise clocking of signals..

Secondly, Marsh is directed to a fundamentally different problem than Blair. Marsh is directed to preventing multiple reads from a memory of an RFID transponder. In contrast, Blair employs to a simple resonant transponder without any memory. Blair simply determines whether a transponder is present, rather than trying to read information from the transponder. As such, one of ordinary skill in the art would not look to Marsh as being analogous to a simple resonant marker system. The Blair system simply cannot be modified to prevent multiple reads, the principal goal of Marsh.

Thirdly, adding the antenna of Marsh to the Blair device would not yield predictable result, but rather would require significant modification if such were to work at all.[1] In particular, Marsh does not accommodate receive portions during which the transceiver listens for responses while no antennas are transmitting interrogation signals. Such modification appears to render the device of Marsh inoperable for its intended purpose.[2]

Fourthly, Marsh would have to be modified to add receive portions where the transceiver listens for responses while no antennas are transmitting interrogation signals. Such a modification would change the principal of operation.[3] Marsh principal operation is to maintain repeat interrogation with a given antenna element within a time period during which a memory of the transponder can retain information (*i.e.*, indicative of having already been read). Thus, Marsh teaches emitting interrogation signals from successive ones of the antenna elements, and listening for responses while still emitting signals. Adding receive periods during which no interrogation signals are emitted is a fundamentally different principal of operation from that taught by Marsh.

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[1] The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007), MPEP 2143.01 III.

[2] If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP 2143.01 V.

[3] If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP 2143.01 VI.

Claim 41 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Blair in view of Marsh and further in view of Pauly et al. (U.S. Patent No. 6,349,234, hereinafter "Pauly").

As noted in Applicants' previous response, Pauly is directed to an implantable device with *optical* telemetry. Pauly, title, abstract. Pauly discloses an implanted pacer 106 (*e.g.*, pacemaker) which *optically* communicates with a programmer 110 using a wand 108 via lights and light sensors. Pauly, col. 5, lines 5-52. The light signals may be modulated using various pulse-width modulation (PWM), frequency-shift keying (FSK) or other techniques. Pauly, col. 6, lines 31-45.

Applicants note that the inclusion of Marsh, in lieu of Rubin, does not provide the teachings purportedly supplied by Pauly.

The most recent Office Action attempts to address Applicants' previous arguments by contending that Pauly is being used to teach that an interrogator can use different modulation techniques for communications channels, and concludes that it would have been obvious to one of ordinary skill in the art to use different pulse width modulation scheme to effect communications between the interrogator and tag. Office Action mailed April 22, 2009, page 10. Applicants assume that such response is intended to address Applicants' earlier argument that Pauly is directed to an active implanted pacemaker, rather than a passive transponder that is removed from the patient. However, that response fails to address, or even acknowledge, Applicants' other arguments with respect to the purported combination including Pauly.

Firstly, the Office Action fails to address, or even acknowledge, Applicants' argument that Pauly is directed to *optical* communications. In particular, Pauly teaches that *light* signals may be modulated using various pulse-width modulation (PWM), frequency-shift keying (FSK) or other techniques. Pauly, col. 5, lines 5-52; and col. 6, lines 31-45. As noted in the prior response, Pauly appears to be the result of keyword searching, with the keywords taken from Applicants' claims. Thus selection of Pauly appears to be a classic example of hindsight reconstruction, without taking into account the actual problems being addressed by Applicants or the primary references. There is no reason to believe that one of ordinary skill in the art of radio

communications would look to the field of optical devices. The problems presented by RF communications are distinctly different from the problems presented by optical communications. A rational basis for why one of ordinary skill in the art of RF communications would look to teachings on optical communications must be supplied to establish a prima facie obviousness rejection.

The Office Action also fails to address Applicants' argument that Pauly must be considered in its entirety, including those portions that teach the use of light. As previously argued, substituting the teachings of Pauly into the device of Blair would render the resulting combination inoperative since surgical objects could not be reliably found using light instead of wireless interrogation signals. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is *no suggestion or motivation* to make the proposed modification. MPEP 2143 V (emphasis added). Simply saying that Pauly is being used to show that different modulation techniques were know does not rebut Applicants' argument that the purported combination would not be obvious since such would render one of the devices inoperable. As noted in the MPEP, such is necessary to establish a prima facie obviousness rejection.

The Office Action further fails to address Applicants' earlier argument that the purported combination would change the principal of operation of the prior art invention. For example, the proposed combination employs wireless communications (*e.g.*, RF, microwave) instead of the optical communication taught by Pauly. However *optical* communications is a *principal of operation* of Pauly. *Pauly even clearly rejects the use of electromagnetic communications*. Pauly, co. 1, lines 47-54. A proposed combination that changes the principal of operation of the reference is *not* a prima facie showing of obvious. MPEP 2143.01 VI. Again, suggesting that Pauly is only being offered to show that different modulation techniques existed fails to rebut Applicants' argument that the purported combination would not be obvious since such would change a principal of operation of one of the devices. As noted in the MPEP, such is necessary to establish a prima facie obviousness rejection.

Claim 42 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Blair in view of Marsh and further in view of Lewiner et al. (U.S. Patent No. 4,893,118, hereinafter "Lewiner").

Applicants note that the inclusion of Marsh, in lieu of Rubin, does not provide the teachings purportedly supplied by Lewiner.

The Office Action states that "Lewiner is used indicate that using voltage modulation in a communications system is well know in the art to convey information in a communications channel, so using voltage modulation in the system of Blair would yield a same predictable results [sic] of conveying information between an interrogator and a tag." Office Action mailed April 22, 2009, page 10. Applicants initially note that a single reference does not establish a teaching as "well known." More importantly, that fact that a reference teaches a technique (*e.g.*, voltage modulation), does not establish that using that same technique in a different device would yield predictable results. In fact, Applicants' prior response explained why such results would *not be predictable*, noting the differences between near field and far field communications. The current Office Action fails to address the distinction between near field and far field communications. A conclusionary statement[4] that a modification would yield predictable results does not rebut Applicants' argument, and thus does not establish a prima facie obviousness rejection.

The Office Action concludes that because voltage modulation in communications systems is purportedly well known "the proposed modification of Blair would not change the principal operation of the reference of Blair." Office Action mailed April 22, 2009, page 10. Again, such a conclusionary statement[5] is not a reasoned rationale sufficient to support a prima facie obviousness rejection. The fact that a technique may be know, does not mean that

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[4] "A statement that modifications of the prior art to meet the claimed invention would have been "'well within the ordinary skill of the art at the time the claimed invention was made'" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). **"'>[R]ejections on obviousness cannot be sustained by mere conclusionary statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396 quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)." MPEP 2143.01 IV (emphasis in original).

[5] *Ibid.*

employing that technique in another device won't change the principal of operation of that other device.

Further, the contactless reader device taught by Lewiner that relies on *near field* effects does *not* appear capable of achieving the type of longer *range* necessary for detecting tagged foreign objects in a body in a surgical environment. Near field communications and far field communications are distinctly different, the earlier relying on induction while the later relying on radiation of electromagnetic energy. Each has distinctly different operational principals, characteristics and problems. Some reasoned rational must be provided as to why the Office believes that substituting teachings related to a near field contactless reader is would not modify the principal of operation of Blair.[6]

Even further, the most recent Office Action fails to address, or even acknowledge, Applicants' argument that Lewiner's teaching that the reader transmits and receives simultaneously cannot be construed consistently with the teachings of Blair which require that transmission of the interrogation signal be stopped to allow the response signals to be discerned over the noise. Nor has the Office Action explained how the teachings of Lewiner could be construed consistently with specific claim language of the present application (*e.g.*, the second electronic circuit discriminates the narrowband return signals from noise based on a magnitude of a resonance decay that commences *after a turn-off* of at least one of the pulses). Such appears to necessitate ignoring the teachings of Lewiner.[7]

Claim 59 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Blair in view of Marsh and further in view of Silivan (U.S. Patent No. 4,681,111).

In rejecting claim 59, the Office Action continues to refer to Rubin. Applicants assume that the Office intended to refer to Marsh instead of Rubin. If such assumption is

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[6] If the proposed modification or combination of the prior art would change the principal of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP 2143 VI, citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

[7] A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). MPEP 2141.02 VI.

incorrect, Applicants respectfully request the Office to correct the rejection and provide another opportunity to respond to the corrected rejection.

Silivan is cited for teaching that an interrogator can include a low pass filter, such as a Bessel filter. The Office Action concludes that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Blair and Rubin [sic] to include a Bessel filter in the interrogator as taught by Silivan in order to preserve the wave shape of the filtered signals in the passband, and further smooth the signal."

The Bessel bandpass filter 32 identified in the Office Action is *not* adapted to narrow a bandwidth of the noise, as recited by claim 59. Rather, the Bessel bandpass filter 32 is downstream of an FM demodulator 27. Silivan, col. 8, lines 15-34; and Figures 1 and 4-6. Silivan teaches that noise filtering is performed by a bandpass filter 15, upstream of the decoder 17 and/or FM demodulator 27, and hence upstream of the Bessel filter 32. Silivan, col. 6, lines 45-64. The bandpass filter 15 is not identified as being a Bessel filter. Hence, while Silivan teaches use of a Bessel bandpass filter, such is not taught as being used to filter noise, but rather the Bessel bandpass filter is used to smooth the signal generated by a multi-vibrator 31 of the FM demodulator.

Claims 63 and 64 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Blair (U.S. Patent No. 6,026,818) in view of Marsh and further in view of Nysen (U.S. Patent No. 6,633,226).

In rejecting claims 63 and 64 the Office Action continues to refer to Rubin. Applicants assume that the Office intended to refer to Marsh instead of Rubin. If such assumption is incorrect, Applicants respectfully request the Office to correct the rejection and provide another opportunity to respond to the corrected rejection.

Nysen is directed to a frequency hopping spread spectrum passive *acoustic wave* identification device. Nysen, title, abstract.

The Office Action is using Nysen "to further elaborate that in the frequency hopping spread spectrum system the frequency of the interrogation signal is randomly varied." Office Action mailed April 22, 2009, page 11. The Office Action states that "in a

communications system it is well know [sic] that, varying the frequency will reduce, random noise, fixed frequency interference from near by sources." Office Action mailed April 22, 2009, page 10. The Office Action then concludes that "[s]o using the frequency hopping spread spectrum technique taught be Nysen in Blair would not change the principal operation of Blair." Office Action mailed April 22, 2009, page 10.

However Applicants' prior argument was premised on Nysen clearly being related to *acoustics* (*i.e.*, pressure wave transmission in a medium). Nysen employs *sound,* a fundamentally *different principals of operation*. The Office Action fails to address, or even acknowledge, the fundamental difference in operation between Blair and Nysen.[8]

It stretches the bounds of imagination to contend that one skilled in the art of radio communications would look to the field of acoustics. Such can only be the result of keyword searching, which employs Applicants' claim limitations to try to piece together a combination from disparate references without regard to the fundamental operational principals of such references and without regard to what one of ordinary skill in the art would actually consider as relevant.[9] Such is a classic example of hindsight reasoning, employing Applicants' claims as a blueprint to pick and chose individual components from various unrelated references. The U.S. Patent Office's classification of Nysen (*i.e.*, 340/10.1 and 340/10.3) is further evidence of Nysen's lack of relevance to Blair (*i.e.*, 128/899) or Rubin (*i.e.*, 340/572.3, 340/572.1 and 340/572.5) or the present application (*i.e.*, 128/899).

New independent claim 65 recites, *inter alia,* "a transmitter and receiver communicatively coupled to the transmit/receive antenna elements of the handheld wand and configured to emit a number of pulsed wideband interrogation signals via successive ones of the transmit/receive antenna elements in round-robin succession during respective transmit portions of an interrogation cycle and to detect any return signals received during a receive portion of the

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[8] If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). MPEP 2143 VI.

[9] The mere fact that references can be combined or modified does not render the resultant combination obvious unless **>the results would have been predictable to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007)("If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. MPEP2143 III. (U.S.) is directed to a.

transmit cycles during which the transmitter and receiver does not emit any interrogation signals."

While the precise language of claim 65 is different from that of claim 40, it would not have been obvious to combine the teachings of Blair with those of Marsh for the same reasons as explained above in reference to claim 40.

New claims 66-71 are allowable for the same reasons as discussed above in reference to claims 41, 42, 44, 45, 62 and 63, respectively.

Conclusion

Applicants respectfully submit that the pending claims are in condition for allowance. Any remarks in support of patentability of one claim should not be imputed to any other claim, even if similar terminology is used. Any remarks referring to only a portion of a claim should not be understood to base patentability on that portion; rather, patentability must rest on each claim taken as a whole. A number of clarifying amendments have also been made to the above claim set. Applicants do not acquiesce to each of the Examiner's rejections and to each of the Examiner's assertions regarding what the cited references show or teach, even if not expressly discussed herein. Although changes to the claims have been made, no acquiescence or estoppel is or should be implied thereby; such amendments are made only to expedite prosecution of the present application and are without prejudice to the presentation or assertion, in the future, of claims relating to the same or similar subject matter.

If the undersigned attorney has overlooked a relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found. In light of the above amendments and remarks, Applicants respectfully submit that all pending claims are allowable. Applicants, therefore, respectfully request that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact the undersigned by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. If the Examiner notes any informalities in the claims, the Examiner is encouraged to contact the undersigned by telephone to expediently correct such informalities.

Respectfully submitted,

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